ABSTRACT

THE EFFECT OF METHOXY GROUP IN BENZALDEHYDE IN YIELD OF *N'*-(2-METHOXYBENZYLIDENE)CINNAMOYLHYDRAZIDE

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This study aims to synthesize *N'*-benzylidenecinnamoylhydrazide and *N'*-(2-methoxybenzylidene)cinnamoylhydrazide. The reaction between cinnamoylhydrazide and benzaldehyde obtains *N'*-benzylidene-cinnamoylhydrazide while the reaction between cinnamoylhydrazide with 2-methoxybenzaldehyde obtains *N'*-(2-methoxybenzylidene)cinnamoyl-hydrazide. The synthesize completed by microwave irradiation in the same condition.

N'-benzylidenecinnamoylhydrazide was obtained with 47% relative percentage yield, while *N'*-(2-methoxybenzylidene)-cinnamoylhydrazide was obtained with 14% relative percentage yield by TLC-Densitometer. The structure resulted compound were confirmed by UV-Vis spectrophotometer, IR spectrophotometer, and ^{1}H-NMR spectrometer.

It was concluded that the reactivity of methoxy group in ortho position cannot be proven by the yield because in the same condition, cinnamoylhydrazide still present in its reaction with 2-methoxybenzaldehyde while wasn't present at its reaction with benzaldehyde.

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Keyword : microwave irradiation, benzaldehyde, 2-methoxybenzaldehyde, *N'*-benzylidenecinnamoylhydrazide; *N'*-(2-methoxy-benzylidene)-cinnamoylhydrazide